

REMARKS

Regarding the Examiner's comments in section 2 of the present office action, the applicants have amended the title of the present application above. To address the Examiner's comments in section 5 of the present office action, the applicants have canceled claim 11 without prejudice or disclaimer.

The Examiner asserts in section 4 of the present office action that claim 1 is merely directed toward preventing the conversion of voice frames (having low voice activity) to audio and that there are no steps that reduce hangover. However, the applicants submit that claim 1 describes audio hangover reduction by reciting how the conversion of voice frames (having low voice activity) to audio may be prevented. The deletion of voice frames condenses in time the audio that is produced, thereby reducing audio hangover. The Examiner appears to express this very relationship in the new title suggested by the Examiner in section 2 of the present office action.

Claims 1, 5-8, 11, 16 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanaka et al. (U.S. Patent Number 5,611,018, hereinafter "Tanaka") in view of Inoue (U.S. Patent Number 6,138,090), claims 12, 14, 15, 18 and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanaka in view of Inoue and Kotzin (U.S. Patent Number 5,555,447), and claims 9-10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanaka in view of Inoue and Kanerva et al. (U.S. Patent Number 5,793,744, hereinafter "Kanerva"). Respectfully disagreeing with these rejections, reconsideration is requested by the applicants. Nonetheless, the applicants have amended independent claims 1, 16 and 18 to more clearly highlight the patentability of the present invention over the prior art but not to narrow their scope.

As amended, independent claim 1 recites (emphasis added) "when the number of voice frames stored in the frame buffer exceeds a size threshold and when a threshold number of silent frames have been consecutively stored in the frame buffer, deleting at least one silent frame that was received thereby preventing conversion of the at least one silent frame to audio." As amended, independent claims 16 and 18 recite (emphasis added) "a processor...adapted to delete at least one silent frame that was received thereby preventing conversion of the at least one silent frame to audio,

when the number of voice frames stored in the frame buffer exceeds a size threshold and when a threshold number of silent frames have been consecutively stored in the frame buffer." Regarding the rejection of claims 1, 16 and 18, the Examiner cites Tanaka column 19, lines 5-55 as teaching this language. Tanaka column 19, lines 5-55 reads (emphasis added):

(2) Second Mode (Mode 2)

A case where it is judged that the input sound signal corresponds to the voice section and the ring memory 7 is in the state immediately before overflow corresponds to a second mode.

In this case, the sound signal is sent through the multiplexer 20 to an input signal deleting unit 21, in which the sound signal is deleted. Specifically, a writing operation to the ring memory 7 is stopped until the value of the count by the up-down counter 9 is not more than the underflow detecting data Tmin, that is, until the ring memory 7 enters the state immediately before underflow.

When the ring memory 7 enters the state immediately before underflow, 200 or less, for example, 100 silence signals (signals having a value "0") are outputted from a silence signal inserting unit 22. The silence signals are sent to the ring memory 7 through the demultiplexer 27 and are written thereto. The silence signals are thus written into the ring memory 7 so as to prevent a click sound from being produced at joints of the sound signal ahead of and behind a section in which a sound is deleted.

(3) Third Mode (Mode 3)

A case where it is judged that the input sound signal corresponds to the silence section and the continuation length of the silence section is less than the set pause continuation length Tdel, and the ring memory 7 is not in the state immediately before overflow corresponds to a third mode.

In this case, the same processing as the processing in the above described first mode is performed. In the case corresponding to the third mode, expansion and compression processing may be performed at a compression rate of 1/n, where n is the factor of the reproduction speed. That is, expansion and compression processing is performed at a compression rate of not less than 1/n in the case corresponding to the third mode.

(4) Fourth Mode (Mode 4)

A case where it is judged that the input sound signal corresponds to the silence section and the continuation length of the silence section is less than the set pause continuation length Tdel, and the ring memory 7 is in the state immediately before overflow corresponds to a fourth mode.

In this case, the same processing as the processing in the above described second mode is performed.

The applicants submit that Tanaka appears to be teaching a different set of criteria for when to delete at least one silent frame than the claims explicitly recite. The claims recite deleting at least one silent frame when the number of voice frames stored in the frame buffer exceeds a size threshold and when a threshold number of silent frames have been consecutively stored in the frame buffer. Thus, deleting at least one silent frame occurs when two thresholds (the number of voice frames stored and the number of silent frames consecutively stored) are met / exceeded. The applicants submit that Tanaka neither teaches nor suggests what the claims recite, and in fact teaches a different set of criteria for deletion.

Since none of the references cited, either independently or in combination, teach all of the limitations of independent claims 1, 16 or 18, or therefore, all the limitations of their respective dependent claims, it is asserted that neither anticipation nor a prima facie case for obviousness has been shown. No remaining grounds for rejection or objection being given, the claims in their present form are asserted to be patentable over the prior art of record and in condition for allowance. Therefore, allowance and issuance of this case is earnestly solicited.

The Examiner is invited to contact the undersigned, if such communication would advance the prosecution of the present application. Lastly, please charge any additional fees (including extension of time fees) or credit overpayment to Deposit Account No. 502117 – Motorola, Inc.

Respectfully submitted,
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